Welcome to STN International! Enter x:x

LOGINID:ssspta1644pnh

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* Welcome to STN International NEWS Web Page URLs for STN Seminar Schedule - N. America NEWS 2 Sep 29 The Philippines Inventory of Chemicals and Chemical Substances (PICCS) has been added to CHEMLIST NEWS 3 Oct 27 New Extraction Code PAX now available in Derwent Files NEWS 4 Oct 27 SET ABBREVIATIONS and SET PLURALS extended in Derwent World Patents Index files NEWS 5 Oct 27 Patent Assignee Code Dictionary now available in Derwent Patent Files NEWS 6 Oct 27 Plasdoc Key Serials Dictionary and Echoing added to Derwent Subscriber Files WPIDS and WPIX NEWS 7 Nov 29 Derwent announces further increase in updates for DWPH Dec 5 French Multi-Disciplinary Database PASCAL Now on STN NEWS-<del>-8-</del> NEWS 9 Dec 5 Trademarks on STN - New DEMAS and EUMAS Files NEWS 10 Dec 15 2001 STN Pricing NEWS 11 Dec 17 Merged CEABA-VTB for chemical engineering and biotechnology NEWS 12 Dec 17 Corrosion Abstracts on STN NEWS 13 Dec 17 SYNTHLINE from Prous Science now available on STN NEWS 14 Dec 17 The CA Lexicon available in the CAPLUS and CA files NEWS 15 Jan 05 AIDSLINE is being removed from STN NEWS 16 Feb 06 Engineering Information Encompass files have new names NEWS EXPRESS FREE UPGRADE 5.0e FOR STN EXPRESS 5.0 WITH DISCOVER! (WINDOWS) NOW AVAILABLE NEWS HOURS STN Operating Hours Plus Help Desk Availability NEWS INTER General Internet Information NEWS LOGIN Welcome Banner and News Items NEWS PHONE Direct Dial and Telecommunication Network Access to STN NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 10:38:19 ON 12 FEB 2001 /

. => file medline embase biosis scisearch caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 0.15

FILE 'MEDLINE' ENTERED AT 10:38:50 ON 12 FEB 2001

FILE 'EMBASE' ENTERED AT 10:38:50 ON 12 FEB 2001 COPYRIGHT (C) 2001 Elsevier Science B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 10:38:50 ON 12 FEB 2001 COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'SCISEARCH' ENTERED AT 10:38:50 ON 12 FEB 2001 COPYRIGHT (C) 2001 Institute for Scientific Information (ISI) (R).

FILE 'CAPLUS' ENTERED AT 10:38:50 ON 12 FEB 2001 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

=> s minor histocompatibility antigen

L1 2960 MINOR HISTOCOMPATIBILITY ANTIGEN

## => s ll and derivative

L2 19 L1 AND DERIVATIVE

=> dup remove 12

PROCESSING COMPLETED FOR L2

L3 13 DUP REMOVE L2 (6 DUPLICATES REMOVED)

=> d 13

L3 ANSWER 13 OF 13 MEDLINE

DUPLICATE 3

AN 86002336 MEDLINE

DN 86002336

TI Minor histocompatibility antigens are developmentally regulated on murine embryonal carcinoma cells and their early differentiated derivatives.

AU Avner P; Simmler M C

SO CELL DIFFERENTIATION, (1985 Aug) 17 (2) 115-23. Journal code: CQ6. ISSN: 0045-6039.

CY Ireland

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198601

## => d 113 all 1-13

## L13 NOT FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 13

L4 13 L3

=> d l4 all 1113

13 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE The answer numbers requested are not in the answer set.

L4 ANSWER 1 OF 13 MEDLINE

ENTER ANSWER NUMBER OR RANGE (1):1-13

MEDLINE

AN 2000269805 DN 20269805

TI Adoptive immunotherapy in canine mixed chimeras after nonmyeloablative hematopoietic cell transplantation.

AU Georges G E; Storb R; Thompson J D; Yu C; Gooley T; Bruno B; Nash R A

CS Clinical Research Division, Fred Hutchinson Cancer Research Center, Department of Medicine, University of Washington, Seattle, WA 98109-1024, USA.. ggeorges@fhcrc.org

NC DK42716 (NIDDK) CA15704 (NCI) CA78902 (NCI)

+

SO BLOOD, (2000 May 15) 95 (10) 3262-9. Journal code: A8G. ISSN: 0006-4971.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals

EM 200008

EW 20000803

AB Development of nontoxic and nonmyeloablative regimens for allogeneic hematopoietic stem-cell transplantation will decrease transplantation-related mortality caused by regimen-related toxic effects. In pursuit of this goal, a dog model of stable mixed hematopoietic chimerism was established in which leukocyte-antigen-identical litter mates are given sublethal total-body irradiation (2 Gy) before stem-cell transplantation and immunosuppression with mycophenolate mofetil and cyclosporine afterward. In the current study, we examined whether donor lymphocyte infusion (DLI) could be used as adoptive immunotherapy to convert mixed

to

complete donor chimerism. First, 8 mixed chimeras were given unmodified DLI between day 36 and day 414 after stem-cell transplantation. After a 10- to 47-week follow-up period, there were no significant changes in the percentage of donor engraftment. Next, we immunized the donor to the minor histocompatibility antigens (mHA) of the recipient by means of repeated skin grafting. Lymphocytes from the mHA-sensitized donor were infused between day 201 and day 651 after transplantation. All 8 recipients of mHA-sensitized DLI had conversion to greater than 98% donor chimerism within 2 to 12 weeks of the infusion. Complications from mHA-sensitized DLI included graft-versus-host disease in 2 dogs and marrow aplasia in 1. These results showed that the low-dose transplant regimen establishes immune tolerance, and mHA-sensitized DLI

is

required to break tolerance, thereby converting mixed to complete donor chimerism. We propose that mixed chimerism established after nonmyeloablative allogeneic stem-cell transplantation provides a platform

for adoptive immunotherapy that has clinical potential in the treatment of patients with malignant diseases. CTCheck Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S. Cyclosporine: AD, administration & dosage \*Hematopoietic Stem Cell Transplantation Immunosuppressive Agents: AD, administration & dosage \*Immunotherapy, Adoptive Isoantigens Lymphocyte Transfusion \*Lymphocytes: IM, immunology Mycophenolic Acid: AA, analogs & derivatives Mycophenolic Acid: AD, administration & dosage Myeloablative Agonists: TU, therapeutic use Tissue Donors \*Transplantation Chimera Transplantation Immunology RN 128794-94-5 (RS 61443); 24280-93-1 (Mycophenolic Acid); 59865-13-3 (Cyclosporine) CN 0 (Immunosuppressive Agents); 0 (Isoantigens); 0 (Myeloablative Agonists) ANSWER 2 OF 13 MEDIINE AN 97256599 MEDLINE DN 97256599 ΤI Identification of the rat maternally transmitted minor histocompatibility antigen. Bhuyan P K; Young L L; Lindahl K F; Butcher G W ΑU Howard Hughes Medical Institute, The University of Texas Southwestern CS Medical Center, Dallas 75235, USA. JOURNAL OF IMMUNOLOGY, (1997 Apr 15) 158 (8) 3753-60. SO Journal code: IFB. ISSN: 0022-1767. CY United States DT Journal; Article; (JOURNAL ARTICLE) LΑ FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals 199707 EW 19970702 The rat maternally transmitted Ag has been previously described as a AB histocompatibility Ag composed of a mitochondrially transmitted factor (MTF) and the RT1.Aa MHC class I molecule. We compared the DNA sequences of the 13 mitochondrial open reading frames from different rat strains and identified four coding polymorphisms that correlated with this MTF. We used synthetic 17-mer peptides spanning the polymorphisms to sensitize appropriate target cells in lymphocytotoxicity assays and found that the MTF is derived from an internal region of ATPase 6. A tridecameric derivative of the ATPase 6 17 mer (termed 13N3E) could sensitize RT1.Aa-expressing target cells at picomolar concentrations and, when present on such cells, could compete fully with the natural ligand in

cold-target competition assays. Comparing the 13N3E peptide with the

known

peptide-binding requirements of RT1.Aa suggested two possible binding conformations, placing either an internal or a C-terminal arginine in the F pocket of the peptide-binding groove. Arguments favoring a "bulging" conformation, with N- and C-terminal residues bound into their conserved pockets, are discussed.

```
Check Tags: Animal; Female; Support, Non-U.S. Gov't
CT
      Amino Acid Sequence
      DNA, Mitochondrial: GE, genetics
     *Immunity, Maternally-Acquired
     Minor Histocompatibility Antigens: GE, genetics
     *Minor Histocompatibility Antigens: IM, immunology
     Molecular Sequence Data
      Pregnancy
      Rats
     Rats, Inbred Strains
     0 (DNA, Mitochondrial); 0 (Minor Histocompatibility
     Antigens)
     ANSWER 3 OF 13 MEDLINE
L4
ΑN
     96180356
                  MEDLINE
DN
     96180356
ΤI
     Effect of metacycloprodigiosin, an inhibitor of killer T cells on murine
     skin and heart transplants.
     Magae J; Miller M W; Nagai K; Shearer G M
ΑU
     Experimental Immunology Branch, National Cancer Institute, National
CS
     Institutes of Health, Bethesda, MD 20892, USA.
     JOURNAL OF ANTIBIOTICS, (1996 Jan) 49 (1) 86-90.
SO
    Journal code: HCF. ISSN: 0021-8820.
CY
     Japan
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
     Priority Journals; Cancer Journals
FΜ
     199608
    Metacycloprodigiosin is an antibiotic that has been shown to suppress
     T-cell proliferation induced by concanavalin A in vitro. We examined the
     effect of metacycloprodigiosin on murine allogenic skin and heart
     transplantation models, and compared graft rejection with donor-specific
     cytotoxic T-cells and antibody activity. The antibiotic slightly
prolonged
     the survival of C57Bl/6 heart and skin grafts in BALB/c mice, although
the
     effect was less that that of cyclosporin A. The effect was more evident
in
     Bm1 (H-2D mutant) skin grafts on C57B1/6 hosts or in a minor
     histocompatibility antigen-mismatched model. In
     contrast, metacycloprodigiosin suppressed anti-graft cytotoxic T-cell
     activity of BALB/c spleen grafted with C57B1/6 skin as comparable to
     cyclosporin A, but had only partial effect on antibody production. Thus,
     metacycloprodigiosin is more effective in reducing splenic cytotoxic
     T-cell activity than in prolonging murine skin or cardiac allografts.
CT
     Check Tags: Animal; Female
      Cyclosporine: PD, pharmacology
     Graft Survival: DE, drug effects
     *Heart Transplantation: IM, immunology
     *Immunosuppressive Agents: PD, pharmacology
     Mice
     Mice, Inbred BALB C
     Mice, Inbred C57BL
     *Prodigiosin: AA, analogs & derivatives
      Prodigiosin: PD, pharmacology
     *Skin Transplantation: IM, immunology
     *T-Lymphocytes, Cytotoxic: DE, drug effects
     T-Lymphocytes, Cytotoxic: IM, immunology
```

```
59865-13-3 (Cyclosporine); 82-89-3 (Prodigiosin)
RN
     0 (metacycloprodigiosin); 0 (Immunosuppressive Agents)
CN
     ANSWER 4 OF 13 MEDLINE
T.4
                 MEDLINE
ΑN
     95002951
DN
     95002951
     Inhibition of nitric oxide production is associated with enhanced weight
     loss, decreased survival, and impaired alloengraftment in mice undergoing
     graft-versus-host disease after bone marrow transplantation.
UΑ
     Drobyski W R; Keever C A; Hanson G A; McAuliffe T; Griffith O W
CS
     Department of Medicine, Medical College of Wisconsin, Milwaukee 53226.
NC
     CA01534 (NCI)
SO
     BLOOD, (1994 Oct 1) 84 (7) 2363-73.
     Journal code: A8G. ISSN: 0006-4971.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
LΑ
     English
     Abridged Index Medicus Journals; Priority Journals; Cancer Journals
FS
EM
     199501
AB
     The pathophysiologic role of nitric oxide (NO) in graft-versus-host
     disease (GVHD) was investigated in a murine bone marrow (BM)
     transplantation model where donor and recipient were H-2-matched but
     differed at multiple minor histocompatibility
     antigens. Host AKR/J (H-2K) mice received lethal total body
     irradiation as pretransplant conditioning followed by transplantation of
     donor B10.BR (H-2K) BM cells with or without spleen cells as a source of
     GVH-reactive T cells. NO production, as assessed by serum nitrate and
     nitrite levels, was increased for up to 3 weeks posttransplant in animals
     undergoing both moderate and severe GVHD. Administration of
     NG-methyl-L-arginine (L-NMA), an inhibitor of nitric oxide synthase, to
     animals undergoing GVHD resulted in effective suppression of NO
production
     when compared with saline-treated GVHD control animals. Suppression of NO
     production by L-NMA in GVHD animals was associated with enhanced weight
     loss early posttransplant and decreased overall survival. Histologic
     analysis of tissues from L-NMA-treated and saline-treated GVHD animals
     showed that early weight loss was not because of an exacerbation of GVHD,
     indicating that NO did not appear to play an immunosuppressive role in
     this experimental model. L-NMA-treated animals with enhanced weight loss
     were observed to have splenic atrophy, decreased extramedullary
     hematopoiesis, and a reduction in BM cellularity when compared with GVHD
     control mice that were weight-matched before transplant. Analysis of
     T-cell chimerism in the spleen showed that L-NMA treatment impaired donor
     T-cell repopulation. In vitro colony-forming unit (CFU) assays were
     performed to further assess the role of NO on BM progenitor cell growth.
     L-NMA added directly into culture had no effect on CFU-
     granulocyte/macrophage (CFU-GM) formation in normal murine BM. In
     contrast, total CFU-GM from L-NMA-treated animals were significantly
     reduced when compared with GVHD controls or BM control animals who did
not
     develop GVHD. Collectively, these data indicate that inhibition of NO
     impairs hematopoietic reconstitution and support the premise that NO
     appears to play a novel role in the facilitation of alloengraftment
     posttransplant.
CT
     Check Tags: Animal; Support, U.S. Gov't, P.H.S.
     Amino Acid Oxidoreductases: AI, antagonists & inhibitors
```

Arginine: AA, analogs & derivatives

Arginine: PD, pharmacology

```
Body Weight: DE, drug effects
      Bone Marrow: PA, pathology
     *Bone Marrow Transplantation: PA, pathology
     *Graft vs Host Disease: PA, pathology
      Graft Survival
      Mice
      Mice, Inbred AKR
      Minor Lymphocyte Stimulatory Antigens: IM, immunology
     *Nitric Oxide: BI, biosynthesis
      Spleen: PA, pathology
      Survival Analysis
RN
     10102-43-9 (Nitric Oxide); 17035-90-4 (omega-N-Methylarginine); 7004-12-8
     (Arginine)
     EC 1.14.13.39 (Nitric-Oxide Synthase); EC 1.4. (Amino Acid
CN
     Oxidoreductases); 0 (Minor Lymphocyte Stimulatory Antigens)
L4
     ANSWER 5 OF 13 MEDLINE
     86002336
ΑN
                  MEDLINE
     86002336
DN
     Minor histocompatibility antigens are
TΙ
     developmentally regulated on murine embryonal carcinoma cells and their
     early differentiated derivatives.
     Avner P: Simmler M C
     CELL DIFFERENTIATION, (1985 Aug) 17 (2) 115-23.
     Journal code: CQ6. ISSN: 0045-6039.
CY
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
     Priority Journals
EΜ
     198601
AB
     Differences in the expression of minor histocompatibility (Hm)
     alloantigens on two mouse embryonal carcinoma (EC) cell lines and the
     PYS-2 and T.D.M.-1 differentiated derivatives have been
     demonstrated by their ability to elicit a cytolytic T lymphocyte
response.
     Experiments involving the use of various responder-target strain
     combinations and recombinant inbred mice strains have shown that: (1)
     there are major differences in Hm expression on EC cells compared with
     differentiated derivatives whose Hm expression appears more like
     that of adult splenocytes; (2) although both EC cell lines show reduced
Hm
     immunogenicity compared with adult splenocytes, major differences in the
     expression and possible presentation of Hm between the F9 and PCC3 EC
cell
     lines can be detected by in vivo priming and by in vitro cold competition
    target experiments. These observations are discussed in relation to the
     differences in allograft rejection patterns observed with PCC3 and F9 and
     to possible differences in developmental staging of these cell lines.
     Check Tags: Animal
     Cell Differentiation
      Cell Line
      Cytotoxicity, Immunologic
     Immunization
     Mice
     Mice, Inbred Strains
     *Minor Histocompatibility Loci
     T-Lymphocytes, Cytotoxic: IM, immunology
    *Teratoma: IM, immunology
```

Teratoma: PA, pathology Yolk Sac: CY, cytology Yolk Sac: IM, immunology

- L4 ANSWER 6 OF 13 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
- AN 97330017 EMBASE
- DN 1997330017
- TI Inducible nitric oxide synthase suppresses the development of allograft arteriosclerosis.
- AU Shears II L.L.; Kawaharada N.; Tzeng E.; Billiar T.R.; Watkins S.C.; Kovesdi I.; Lizonova A.; Pham S.M.
- CS Dr. S.M. Pham, Presbyterian University Hospital, 200 Lothrop Street, Pittsburgh, PA 15213, United States. pham@pittsurg.nb.upmc.edu
- SO Journal of Clinical Investigation, (1997) 100/8 (2035-2042).
  - Refs: 48
  - ISSN: 0021-9738 CODEN: JCINAO
- CY United States
- DT Journal; Article
- FS 018 Cardiovascular Diseases and Cardiovascular Surgery 037 Drug Literature Index
- LA English
- SL English
- AB In cardiac transplantation, chronic rejection takes the form of an occlusive vasculopathy. The mechanism underlying this disorder remains unclear. The purpose of this study was to investigate the role nitric oxide (NO) may play in the development of allograft arteriosclerosis. Rat aortic allografts from ACI donors to Wistar Furth recipients with a strong

genetic disparity in both major and minor

histocompatibility antigens were used for

transplantation. Allografts collected at 28 d were found to have significant increases in both inducible NO synthase (iNOS) mRNA and protein as well as in intimal thickness when compared with isografts. Inhibiting NO production with an iNOS inhibitor increased the intimal thickening by 57.2%, indicating that NO suppresses the development of allograft arteriosclerosis. Next, we evaluated the effect of cyclosporine (CsA) on iNOS expression and allograft arteriosclerosis. CsA (10 mg/kg/d) suppressed the expression of iNOS in response to balloon-induced aortic injury. Similarly, CsA inhibited iNOS expression in the aortic

allografts,

associated with a 65% increase in intimal thickening. Finally, we investigated the effect of adenoviral- mediated iNOS gene transfer on allograft arteriosclerosis. Transduction with iNOS using an adenoviral vector suppressed completely the development of allograft

arteriosclerosis

in both untreated recipients and recipients treated with CsA. These results suggest that the early immune-mediated upregulation in iNOS expression partially protects aortic allografts from the development of allograft arteriosclerosis, and that iNOS gene transfer strategies may prove useful in preventing the development of this otherwise untreatable disease process.

CT Medical Descriptors:

\*atherosclerosis: CO, complication \*atherosclerosis: PC, prevention \*atherosclerosis: ET, etiology \*graft rejection: PC, prevention \*graft rejection: ET, etiology \*graft rejection: DT, drug therapy

```
*graft rejection: CO, complication
     *heart transplantation
     adenovirus
     allograft
     animal model
     animal tissue
     artery intima proliferation: ET, etiology
     artery intima proliferation: PC, prevention
     artery intima proliferation: CO, complication
     article
     controlled study
     enzyme induction
     gene transfer
     graft failure
     immunosuppressive treatment
     nonhuman
     priority journal
     rat
     subcutaneous drug administration
     virus vector
     Drug Descriptors:
     *cyclosporin a: DT, drug therapy
     *nitric oxide: EC, endogenous compound
     *nitric oxide synthase: EC, endogenous compound
     immunosuppressive agent: DT, drug therapy
     lysine derivative
     messenger rna: EC, endogenous compound
RN
     (cyclosporin a) 59865-13-3, 63798-73-2; (nitric oxide) 10102-43-9;
(nitric
     oxide synthase) 125978-95-2
L4
     ANSWER 7 OF 13 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ΑN
     94028927 EMBASE
DN
     1994028927
TI
     Veto suppression: The peripheral way of T cell tolerization.
ΑU
     Tscherning T.; Claesson M.H.
CS
     Lab of Experimental Immunology, Institute of Medical Anatomy, The Panum
     Institute, Blegdamsvej 3C, DK-2200 Copenhagen N, Denmark
     Experimental and Clinical Immunogenetics, (1993) 10/4 (179-188).
SO
     ISSN: 0254-9670 CODEN: ECIME4
CY
     Switzerland
DT
     Journal: General Review
FS
     022
             Human Genetics
     026
             Immunology, Serology and Transplantation
LA
     English
SL
     English
AB
     Cells with veto activity induce a state of tolerance in T cell precursors
     with specificity for antigen determinants expressed on the surface of the
     veto-active cell. This state of tolerance is not strictly defined, but
     results in altered responses to specific antigen, such as decreased
     proliferation, decreased development of cytotoxicity and secretion of
     interleukins, down-regulated ability to reject grafts and expression of T
     cell and IL-2 receptors. Both clonal anergy and clonal deletion has been
     shown to operate in vetoed T cells. Veto-induced tolerance can be
     established in vitro and in vivo for both MHC class I and II as well as
     minor histocompatibility antigens. The most
    powerful veto activity is present in mature activated cytotoxic CD8+ T
    cells, but other cells including noncytotoxic cells are also capable of
```

acting as veto cells. Thus it appears that veto activity per se is not confined to a certain cellular entity, but rather reflects a constitutively expressed immunoregulatory capability inherent to a broad array of activated T cell and non-T cell categories with their own distinct functions not related to their eventual veto activity.

CT Medical Descriptors:

\*immunological tolerance

\*immunoregulation

\*t lymphocyte clonal anergy

cell proliferation

cytotoxicity

graft rejection

lymphocyte clone

mouse

nonhuman

precursor cell

priority journal

protein secretion

review

Drug Descriptors:

t lymphocyte receptor

cd8 antigen: EC, endogenous compound

interleukin 2 receptor: EC, endogenous compound

interleukin derivative: EC, endogenous compound

major histocompatibility antigen class 1: EC, endogenous compound major histocompatibility antigen class 2: EC, endogenous compound

membrane antigen: EC, endogenous compound

- L4 ANSWER 8 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS
- AN 1990:28060 BIOSIS
- DN BA89:15026
- TI PROTEIN-SPECIFIC CYTOTOXIC T LYMPHOCYTES RECOGNITION OF TRANSFECTANTS EXPRESSING INTRACELLULAR MEMBRANE-ASSOCIATED OR SECRETED FORMS OF BETA GALACTOSIDASE.
- AU RAMMENSEE H-G; SCHILD H; THEOPOLD U
- CS MAX-PLANCK-INST. BIOL., ABT. IMMUNGENETIK, CORRENSSTRASSE 42, D-7400 TUEBINGEN, FRG.
- SO IMMUNOGENETICS, (1989) 30 (4), 296-302. CODEN: IMNGBK. ISSN: 0093-7711.
- FS BA; OLD
- LA English
- AB BALB/c-derived tumor cells were transfected with recombinant Escherichia coli .beta.-galactosidase (.beta.-gal) gene which were inserted into IgM heavy chain gene derivatives, leading to expression of the resulting fusion protein in different cellular compartments. A .beta.-gal-specific, major histocompatibility complex (MHC) class I-restricted CD8+ CD4- cytotoxic T lymphocyte (CTL) line of BALB/c origin raised against one transfectant expressing cytoplasmic .beta.-gal also lysed transfectants expressing .beta.-gal as membrane-inserted fusion protein, as well as transfectants secreting .beta.-gal. Our data show

that

MHC class I-restricted CTL can recognize fragments of nonviral cellular proteins, be they expressed as intracellular, membrane-inserted, or secreted products. The findings confirm and extend a hypothesis on the nature of minor histocompatibility (H) antigens formulated earlier.

CC Cytology and Cytochemistry - Animal \*02506 Biochemical Studies - Proteins, Peptides and Amino Acids 10064

```
Biophysics - Membrane Phenomena *10508
     Enzymes - Physiological Studies *10808
     Metabolism - Proteins, Peptides and Amino Acids *13012
     Immunology and Immunochemistry - Immunopathology, Tissue Immunology
     *34508
BC
    Muridae 86375
ΙT
    Miscellaneous Descriptors
       MOUSE MAJOR HISTOCOMPATIBILITY COMPLEX MINOR
     HISTOCOMPATIBILITY ANTIGENS
RN
     9031-11-2 (BETA GALACTOSIDASE)
    ANSWER 9 OF 13 CAPLUS COPYRIGHT 2001 ACS
L4
    1999:96271 CAPLUS
     130:167164
TI
    The HA-1 antigen
IN
     Goulmy, Elsa Afra Julia Maria; Hunt, Donald F.; Engelhard, Victor H.
PA
     Rijksuniversiteit te Leiden, Neth.
SO
     PCT Int. Appl., 47 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
    English
    ICM C07K014-705
IC
     ICS C07K016-28; A61K038-17
CC
     15-2 (Immunochemistry)
FAN.CNT 3
    PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
    WO 9905174 A1 19990204 WO 1998-NL425 19980723
PΙ
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     A1 19990216
    AU 9885640
                                        AU 1998-85640 19980723
PRAI EP 1997-202303
                     19970723
    WO 1998-N
L425
       19980723
    The present invention discloses the peptide sequence of a so called minor
    H antigen. The minor H antigens are assocd. with the graft vs. host
    disease. The peptide and its derivs. find many uses in bone
    marrow transplantation, organ transplantation and in the treatment of
    leukemia. The peptide and its derivs. can be incorporated in
    vaccines, in pharmaceutical formulations and they can be used in
    diagnostic test kits. The peptide is derived from the HA-1 minor antigen
    and has the sequence VLXDDLLEA, wherein X represents a histidine or an
    arginine residue. Both donors and recipients in bone marrow
    transplantation can be treated with the peptides, optionally in
    combination with other peptides, coupled to carriers, with suitable
    excipients and/or adjuvants.
ST
    minor histocompatibility antigen HA1 immune
    tolerance; T cell epitope HA1 antigen leukemia; graft vs host disease
TT
    Minor histocompatibility antigens
    RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (HA-1; T cell epitope obtainable from the minor
```

```
histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
    Anti-idiotypic antibodies
    Autoimmune diseases
     B cell (lymphocyte)
     Bone marrow transplant
     Drug delivery systems
     Graft vs. host reaction
    Immune tolerance
     Immunization
     Immunological diseases
     Leukemia
    Mammal (Mammalia)
    Medicine
     Protein sequences
    Transplant (organ)
     Transplant rejection
     Vaccines
        (T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoletic disease, and graft vs host disease)
TΨ
    Antibodies
    TCR (T cell receptors)
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
TT
    Class I HLA antigens
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
IT
    Epitopes
        (T cell; T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
IT
    Test kits
        (diagnostic; T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
IT
    T cell (lymphocyte)
        (epitope; T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
TΥ
    Hematopoietic precursor cell
        (tumors; T cell epitope obtainable from the minor
     histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
ΙT
    204931-32-8
                  220419-68-1
```

```
RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (T cell epitope obtainable from the minor
      histocompatibility antigen HA-1 for induction of
        immune tolerance and for treating transplant rejection, autoimmune
        disease, neoplastic hematopoietic disease, and graft vs host disease)
RE.CNT
RE
(1) Den Haan, J; Eur J Immunol 1996, V26, P2680 CAPLUS
(2) Den Haan, J; Science 1995, V268, P1476 CAPLUS
(3) Den Haan, J; Science 1998, V279, P1054112
(4) Goulmy, E; WO 9705168 A 1997 CAPLUS
(5) Goulmy, E; WO 9705169 A 1997 CAPLUS
(6) Goulmy, E; Eye 1995, V9, P180
L4
     ANSWER 10 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN
     1999:96270 CAPLUS
DN
     130:167163
ΤI
     The HA-1 antigen
     Goulmy, Elsa Afra Julia Maria; Hunt, Donald Frederick; Engelhard, Victor
IN
PA
     Rijksuniversiteit te Leiden, Neth.
     PCT Int. Appl., 57 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
IC
     ICM C07K014-705
     ICS C07K016-28; A61K038-17; C12N005-06
     15-2 (Immunochemistry)
     Section cross-reference(s): 3
FAN.CNT 3
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
                                          -----
                                        WO 1998-NL424 19980723
     WO 9905173
                     A1 19990204
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9885639
                     A1 19990216
                                         AU 1998-85639
                                                           19980723
     EP 996636
                      A1 20000503
                                         EP 1998-936758
                                                           19980723
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
ΙE
PRAI EP 1997-202303
                     19970723
    WO 1998-N
L424
       19980723
    The present invention discloses the peptide sequence of a so-called minor
AB
     H antigen. The minor H antigens are assocd. with the graft vs. host
     disease. The peptide and its derivs. find many uses in bone
     marrow transplantation, organ transplantation and in the treatment of
     leukemia. The peptide and its derivs. can be incorporated in
    vaccines, in pharmaceutical formulations and they can be used in
    diagnostic test kits. The peptide is derived from the HA-1 minor antigen
    and has the sequence VLXDDLLEA, wherein X represents a histidine or an
```

arginine residue. Both donors and recipients in bone marrow

```
transplantation can be treated with the peptides, optionally in
     combination with other peptides, coupled to carriers, with suitable
     excipients and/or adjuvants.
     minor histocompatibility antigen HA1 immune
ST
     tolerance; T cell epitope HA1 transplant rejection; graft vs host disease
     HAl antigen
    Minor histocompatibility antigens
TT
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (HA-1; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
     Genes (animal)
ΤТ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (KIAA0223; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
    Anti-idiotypic antibodies
TΤ
    Autoimmune diseases
     B cell (lymphocyte)
     Bone marrow transplant
     Cytotoxic T cell
     Dendritic cell
     Drug delivery systems
     Epitopes
     Graft vs. host reaction
     Hematopoietic precursor cell
     Immune tolerance
     Immunization
     Immunological diseases
    Mammal (Mammalia)
    Medicine
     Polymorphism (genetic)
     T cell (lymphocyte)
     Transplant (organ)
     Transplant rejection
     Vaccines
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
     Antibodies
     TCR (T cell receptors)
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
     Class I HLA antigens
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (T cell epitope of minor histocompatibility
```

```
antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
IT
     Genes (animal)
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (suicide; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
ΙT
     Hematopoietic precursor cell
        (tumors; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
TΤ
     204931-32-8
                   220419-68-1
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study);
USES
     (Uses)
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune tolerance and for
        treatment of transplant rejection, graft vs. host disease, leukemia
and
        immune disease)
RE.CNT
RE
(1) Den Haan, J; Eur J Immunol 1996, V26, P2680 CAPLUS
(2) Den Haan, J; Science 1995, V268, P1476 CAPLUS (3) Den Haan, J; Science 1998, V279, P1054 CAPLUS
(4) Goulmy, E; WO 9705168 A 1997 CAPLUS
(5) Goulmy, E; WO 9705169 A 1997 CAPLUS
(6) Goulmy, E; Eye 1995, V9, P180
(7) Van Der Harst, D; Blood 1994, V83(4), P1060 CAPLUS
    ANSWER 11 OF 13 CAPLUS COPYRIGHT 2001 ACS
L4
    1997:215796 CAPLUS
ΑN
    126:198552
DN
ΤI
    HA-2 antigenic peptide
    Goulmy, Els A. J. M.; Hunt, Donald F.; Engelhard, Victor H.
IN
    Rijksuniversiteit Te Leiden, Neth.; University of Virginia Patent
PA
    Foundation; Goulmy, Els A. J. M.; Hunt, Donald F.; Engelhard, Victor H.
ŞO
    PCT Int. Appl., 36 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
    ICM C07K014-74
IC
     ICS C07K016-28; A61K038-16; C12N005-08
    15-2 (Immunochemistry)
CC
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
                      ____
                            -----
    WO 9705169
                  A1
                            19970213
PΤ
                                          WO 1996-NL183
                                                             19960425
         W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
             ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
             LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
```

```
SG, SI
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
     US 5770201
                            19980623
                                        US 1994-363691
                                                            19941223
                      А
                      AΑ
     CA 2224909
                            19970213
                                          CA 1996-2224909 19960425
     AU 9654099
                      A1
                            19970226
                                          AU 1996-54099
                                                            19960425
    AU 716907
                       B2
                            20000309
                                           EP 1996-911119
     EP 840750
                      A1
                            19980513
                                                            19960425
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI
     JP 11514340
                      T2
                            19991207
                                          JP 1996-507492
                                                            19960425
PRAI EP 1995-202039
                      19950725
     WO 1996-N
L183
        19960425
     The present invention discloses the first peptide sequence of a so-called
     minor H antigen. The minor H antigens are assocd. with the Graft vs.
Host
     Disease. The peptide and its derivs. find many uses in bone
    marrow transplantation, organ transplantation and in the treatment of
     leukemia. The peptide and its derivs. can be incorporated in
    vaccines, in pharmaceutical formulations and they can be used in
     diagnostic test kits. The peptide is derived from the HA-2 minor antigen
     and has the sequence TXGEVXVSV, Wherein X represents a leucine or an
     isoleucine residue. Both donors and recipients in bone marrow
     transplantation can be treated with the peptides, optionally in
     combination with other peptides, coupled to carriers, with suitable
     excipients and/or adjuvants.
ST
    minor histocompatibility antigen HA2
    transplant rejection
IT
    Minor histocompatibility antigens
    RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (HA-2; minor histocompatibility antigen
        HA-2 peptide for treating transplant rejection)
    T cell (lymphocyte)
IT
        (epitope; minor histocompatibility antigen
        HA-2 peptide for treating transplant rejection)
IT
    B cell (lymphocyte)
    Graft-vs.-host reaction
    Immune tolerance
    Leukemia
    Protein sequences
    Transplant rejection
    Vaccines
        (minor histocompatibility antigen HA-2
        peptide for treating transplant rejection)
ΙT
    TCR (T-cell receptors)
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (minor histocompatibility antigen HA-2
        peptide for treating transplant rejection)
IT
    Antibodies
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (minor histocompatibility antigen HA-2
        peptide for treating transplant rejection)
ΙT
    Hematopoietic precursor cell
        (tumors; minor histocompatibility antigen
        HA-2 peptide for treating transplant rejection)
IT
    187944-95-2
                 187944-96-3 187944-97-4
```

```
RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (minor histocompatibility antigen HA-2
        peptide for treating transplant rejection)
L4
     ANSWER 12 OF 13 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1990:1427 CAPLUS
DN
     112:1427
TΙ
     Mapping minor H genes
ΑU
     Simpson, E.; Tomonari, K.
CS
     Transplant. Biol. Sect., MRC Clin. Res. Cent., Harrow/Middlesex, HA1 3UJ,
SO
     Immunology (1989), Suppl. 2, 42-9
     CODEN: IMMUAM; ISSN: 0019-2805
DT
     Journal; General Review
LA
     English
CC
     3-0 (Biochemical Genetics)
     Section cross-reference(s): 13, 15
ΑB
     A review with 14 refs. The manner in which minor histocompatibility (H)
     antigens have been defined in mouse and man, in vivo and in vitro, is
     considered. Chromosomal mapping of minor H genes using T-cell clones is
     illustrated, with particular ref. to the H-Y antigen gene, using the
     sex-reversing translocation Sxr of mouse and the deriv. Sxr
     mutation. A no. of minor H antigen-specific T-cell clones restricted by
     class I or class II major histocompatibility complex (MHC) mols. are
     described, together with information about their phenotypes and T-cell
     receptor usage.
st
     histocompatibility H antigen gene mapping review
     Gene and Genetic element, animal
IΤ
     RL: BIOL (Biological study)
        (for minor histocompatibility antigens,
        mapping of)
TI
     Antigens
     RL: BIOL (Biological study)
        (H, genes for minor, mapping of)
    ANSWER 13 OF 13 CAPLUS COPYRIGHT 2001 ACS
     1985:521308 CAPLUS
AN
DN
     103:121308
TI
     Differential Hm antigen expression on EC cells and early differentiated
     derivatives
ΑU
     Simmler, M. C.; Avner, P. R.
     Unite Immunol. Virol. Tumeurs, Hop. Cochin, Paris, 75014, Fr.
CS
SO
    EMBO J. (1985), 4(5), 1177-85
    CODEN: EMJODG; ISSN: 0261-4189
DT
    Journal
LΑ
    English
    15-2 (Immunochemistry)
CC
    Differences in the expression of minor histocompatibility (Hm)
     alloantigens on 2 mouse embryonal carcinoma (EC) cell lines and the PYS-2
     and T.D.M.-1 differentiated derivs. have been demonstrated by
     their ability to elicit a cytolytic T-lymphocyte (CTL) response. Expts.
     involving the use of various responder-target strain combinations on the
     one hand and recombinant inbred (RI) mice strains on the other have shown
     that: (i) there are major differences in Hm expression on the EC cells
     compared with the differentiated derivs. whose Hm expression
     appears more akin to that of adult splenocytes; (ii) although both EC
cell
```

lines show reduced Hm immunogenicity compared with adult splenocytes, major differences in the expression and possibly presentation between the F9 and PCC3 EC cell lines can be detected both by in vivo priming and by in vitro cold competition target expts. These results are discussed in connection with the unexpected finding that some EC cell lines are capable of specific competition effects for appropriate CTL effectors despite their inability to stimulate such effectors in vitro and the absence of major histocompatibility complex products. minor histocompatibility antigen embryonal carcinoma ΙT Lymphocyte (T-, cytolytic, minor histocompatibility antigen expression on embryonal carcinoma cells in relation to) IT Carcinoma (embryonal, minor histocompatibility antigen expression on, cytolytic T lymphocyte response in relation to) IT Antigens RL: BIOL (Biological study). (minor histocompatibility, of embryonal carcinoma cells, cytolytic T lymphocyte response in relation to) => d his (FILE 'HOME' ENTERED AT 10:38:19 ON 12 FEB 2001) FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 10:38:50 ON 12 FEB 2001 L12960 S MINOR HISTOCOMPATIBILITY ANTIGEN 19 S L1 AND DERIVATIVE L2 13 DUP REMOVE L2 (6 DUPLICATES REMOVED) T.3 T.4 13 S L3 => s 11 and HA-1 149 L1 AND HA-1 T.5 => dup remove 15 PROCESSING COMPLETED FOR L5 58 DUP REMOVE L5 (91 DUPLICATES REMOVED) => s 16 and VLXDDLLEA 2 L6 AND VLXDDLLEA => d 17 all 1-2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS 1.7 1999:96271 CAPLUS ΑN

130:167164 DN

ΤI The HA-1 antigen

IN Goulmy, Elsa Afra Julia Maria; Hunt, Donald F.; Engelhard, Victor H.

Rijksuniversiteit te Leiden, Neth.

```
PCT Int. Appl., 47 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
IC
     ICM C07K014-705
     ICS
         C07K016-28; A61K038-17
CC
     15-2 (Immunochemistry)
FAN.CNT 3
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                           DATE
     ______
                      ____
                            -----
                                           -----
                                          WO 1998-NL425
PΤ
     WO 9905174
                     A1
                            19990204
                                                            19980723
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9885640
                      A1 19990216
                                          AU 1998-85640
                                                            19980723
PRAI EP 1997-202303
                      19970723
     WO 1998-N
        19980723
AB
     The present invention discloses the peptide sequence of a so called minor
     H antigen. The minor H antigens are assocd. with the graft vs. host
     disease. The peptide and its derivs. find many uses in bone marrow
     transplantation, organ transplantation and in the treatment of leukemia.
     The peptide and its derivs. can be incorporated in vaccines, in
     pharmaceutical formulations and they can be used in diagnostic test kits.
     The peptide is derived from the HA-1 minor antigen and
     has the sequence VLXDDLLEA, wherein X represents a histidine or
     an arginine residue. Both donors and recipients in bone marrow
     transplantation can be treated with the peptides, optionally in
     combination with other peptides, coupled to carriers, with suitable
     excipients and/or adjuvants.
ST
     minor histocompatibility antigen HA1 immune
     tolerance; T cell epitope HA1 antigen leukemia; graft vs host disease
IT
    Minor histocompatibility antigens
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (HA-1; T cell epitope obtainable from the
     minor histocompatibility antigen HA
        -1 for induction of immune tolerance and for treating
        transplant rejection, autoimmune disease, neoplastic hematopoietic
        disease, and graft vs host disease)
IT
    Anti-idiotypic antibodies
    Autoimmune diseases
    B cell (lymphocyte)
    Bone marrow transplant
     Drug delivery systems
    Graft vs. host reaction
     Immune tolerance
     Immunization
     Immunological diseases
    Leukemia
    Mammal (Mammalia)
    Medicine
    Protein sequences
```

```
Transplant (organ)
     Transplant rejection
     Vaccines
        (T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
IT
     Antibodies
     TCR (T cell receptors)
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
ΙT
     Class I HLA antigens
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
IT
     Epitopes
        (T cell; T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
     Test kits
IT
        (diagnostic; T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
ΙT
     T cell (lymphocyte)
        (epitope; T cell epitope obtainable from the minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
IT
    Hematopoietic precursor cell-
        (tumors; T cell epitope obtainable from the minor
     histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
IT
     204931-32-8
                  220419-68-1
     RL: BSU (Biological study, unclassified); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (T cell epitope obtainable from the minor
     histocompatibility antigen HA-1
        for induction of immune tolerance and for treating transplant
        rejection, autoimmune disease, neoplastic hematopoietic disease, and
        graft vs host disease)
RE.CNT
RE
```

```
    Den Haan, J; Eur J Immunol 1996, V26, P2680 CAPLUS
    Den Haan, J; Science 1995, V268, P1476 CAPLUS
    Den Haan, J; Science 1998, V279, P1054112

(4) Goulmy, E; WO 9705168 A 1997 CAPLUS
(5) Goulmy, E; WO 9705169 A 1997 CAPLUS
(6) Goulmy, E; Eye 1995, V9, P180
L7
     ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1999:96270 CAPLUS
DN
     130:167163
     The HA-1 antigen
TΙ
     Goulmy, Elsa Afra Julia Maria; Hunt, Donald Frederick; Engelhard, Victor
IN
PΑ
     Rijksuniversiteit te Leiden, Neth.
SO
     PCT Int. Appl., 57 pp.
     CODEN: PIXXD2
TG
     Patent
LΑ
     English
IC
     ICM C07K014-705
     ICS C07K016-28; A61K038-17; C12N005-06
     15-2 (Immunochemistry)
     Section cross-reference(s): 3
FAN.CNT 3
     PATENT NO.
                      KIND DATE
                                             APPLICATION NO. DATE
ΡI
     WO 9905173
                      Al 19990204
                                            WO 1998-NL424 19980723
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9885639
                       A1 19990216
                                            AU 1998-85639
                                                               19980723
     EP 996636
                             20000503
                        A1
                                            EP 1998-936758
                                                               19980723
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
```

IE PRAI EP 1997-202303 19970723

L424 19980723

WO 1998-N

AB The present invention discloses the peptide sequence of a so-called minor H antigen. The minor H antigens are assocd. with the graft vs. host disease. The peptide and its derivs. find many uses in bone marrow transplantation, organ transplantation and in the treatment of leukemia. The peptide and its derivs. can be incorporated in vaccines, in pharmaceutical formulations and they can be used in diagnostic test kits. The peptide is derived from the HA-1 minor antigen and has the sequence VLXDDLLEA, wherein X represents a histidine or an arginine residue. Both donors and recipients in bone marrow transplantation can be treated with the peptides, optionally in combination with other peptides, coupled to carriers, with suitable excipients and/or adjuvants.

ST minor histocompatibility antigen HAl immune tolerance; T cell epitope HAl transplant rejection; graft vs host disease HAl antigen

IT Minor histocompatibility antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

```
(Biological study); USES (Uses)
        (HA-1; T cell epitope of minor
      histocompatibility antigen HA-1
        for induction of immune tolerance and for treatment of transplant
        rejection, graft vs. host disease, leukemia and immune disease)
IT
     Genes (animal)
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (KIAA0223; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
IT
     Anti-idiotypic antibodies
     Autoimmune diseases
     B cell (lymphocyte)
     Bone marrow transplant
     Cytotoxic T cell
     Dendritic cell
     Drug delivery systems
     Epitopes
     Graft vs. host reaction
     Hematopoietic precursor cell
     Immune tolerance
     Immunization
     Immunological diseases
     Mammal (Mammalia)
     Medicine
     Polymorphism (genetic)
     T cell (lymphocyte)
     Transplant (organ)
     Transplant rejection
     Vaccines
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
IT
     Antibodies
     TCR (T cell receptors)
     RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
ΙT
     Class I HLA antigens
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
ΙT
     Genes (animal)
     RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (suicide; T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
IT
    Hematopoietic precursor cell
        (tumors; T cell epitope of minor histocompatibility
```

```
tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
IT
     204931-32-8
                  220419-68-1
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study);
USES
     (Uses)
        (T cell epitope of minor histocompatibility
      antigen HA-1 for induction of immune
        tolerance and for treatment of transplant rejection, graft vs. host
        disease, leukemia and immune disease)
RE.CNT
RE
(1) Den Haan, J; Eur J Immunol 1996, V26, P2680 CAPLUS
(2) Den Haan, J; Science 1995, V268, P1476 CAPLUS
(3) Den Haan, J; Science 1998, V279, P1054 CAPLUS
(4) Goulmy, E; WO 9705168 A 1997 CAPLUS
(5) Goulmy, E; WO 9705169 A 1997 CAPLUS
(6) Goulmy, E; Eye 1995, V9, P180
(7) Van Der Harst, D; Blood 1994, V83(4), P1060 CAPLUS
=> d his
     (FILE 'HOME' ENTERED AT 10:38:19 ON 12 FEB 2001)
     FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 10:38:50 ON
     12 FEB 2001
L1
           2960 S MINOR HISTOCOMPATIBILITY ANTIGEN
L2
             19 S L1 AND DERIVATIVE
L3
             13 DUP REMOVE L2 (6 DUPLICATES REMOVED)
L4
             13 S L3
L5
            149 S L1 AND HA-1
L6
             58 DUP REMOVE L5 (91 DUPLICATES REMOVED)
L7
              2 S L6 AND VLXDDLLEA
=> s 15 and VLHDDLLEA
             8 L5 AND VLHDDLLEA
L8
=> dup remove 18
PROCESSING COMPLETED FOR L8
              2 DUP REMOVE L8 (6 DUPLICATES REMOVED)
=> d 18 1-2
     ANSWER 1 OF 8 MEDLINE
r_8
     2000166344
                    MEDLINE
ΑN
DN
     20166344
     Molecular modeling of the minor histocompatibility
     antigen HA-1 peptides binding to HLA-A
     alleles.
ΑU
     Ren E C; Kangueane P; Kolatkar P; Lin M T; Tseng L H; Hansen J A
CS
     Department of Microbiology, WHO Collaborating Center for Immunology,
     National University of Singapore, Singapore.. micrenec@nus.edu.sq
```

antigen HA-1 for induction of immune

Page 23

```
SO
      TISSUE ANTIGENS, (2000 Jan) 55 (1) 24-30.
      Journal code: VSV. ISSN: 0001-2815.
 CY
      Denmark
 DT
      Journal; Article; (JOURNAL ARTICLE)
 LΑ
      English
 FS
      Priority Journals
      200005
 EM
 EW
      20000502
 L8
      ANSWER 2 OF 8 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
 NA
      2000049501 EMBASE
 TΙ
      Molecular modeling of the minor histocompatibility
      antigen HA-1 peptides binding to HLA-A
 ΑU
      Ren E.C.; Kangueane P.; Kolatkar P.; Lin M.T.; Tseng L.H.; Hansen J.A.
      Dr. E.C. Ren, Department of Microbiology, Faculty of Medicine, National
 CS
      University Singapore, Singapore 119260, Singapore. micrenec@nus.edu.sg
      Tissue Antigens, (2000) 55/1 (24-30).
 SO
      Refs: 20
      ISSN: 0001-2815 CODEN: TSANA2
      Denmark
. CY
 DΤ
      Journal; Article
 FS
      022 Human Genetics
             Immunology, Serology and Transplantation
 LΑ
      English
 SL
      English
 => d his
      (FILE 'HOME' ENTERED AT 10:38:19 ON 12 FEB 2001)
      FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 10:38:50 ON
      12 FEB 2001
 L1
            2960 S MINOR HISTOCOMPATIBILITY ANTIGEN
 L2
              19 S L1 AND DERIVATIVE
 L3
              13 DUP REMOVE L2 (6 DUPLICATES REMOVED)
 L4
              13 S L3
 L5
             149 S L1 AND HA-1
 L6
              58 DUP REMOVE L5 (91 DUPLICATES REMOVED)
 L7
               2 S L6 AND VLXDDLLEA
 L8
               8 S L5 AND VLHDDLLEA
 L9
               2 DUP REMOVE L8 (6 DUPLICATES REMOVED)
 => s 15 and VLRDDLLEA
              5 L5 AND VLRDDLLEA
 L10
 => dup remove 110
 PROCESSING COMPLETED FOR L10
               1 DUP REMOVE L10 (4 DUPLICATES REMOVED)
 L11
 => D 111
 L11 ANSWER 1 OF 1 MEDLINE
                                                          DUPLICATE 1
```

Page 24

```
ΑN
     2000166344
                    MEDLINE
DN
     20166344
TI
     Molecular modeling of the minor histocompatibility
     antigen HA-1 peptides binding to HLA-A
     alleles.
     Ren E C; Kangueane P; Kolatkar P; Lin M T; Tseng L H; Hansen J A
ΑU
     Department of Microbiology, WHO Collaborating Center for Immunology,
CS
     National University of Singapore, Singapore.. micrenec@nus.edu.sg
SO
     TISSUE ANTIGENS, (2000 Jan) 55 (1) 24-30.
     Journal code: VSV. ISSN: 0001-2815.
CY
     Denmark
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
     Priority Journals
     200005
EM
EW
     20000502
=> d his
     (FILE 'HOME' ENTERED AT 10:38:19 ON 12 FEB 2001)
     FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 10:38:50 ON
     12 FEB 2001
Ll
           2960 S MINOR HISTOCOMPATIBILITY ANTIGEN
             19 S L1 AND DERIVATIVE
L3
             13 DUP REMOVE L2 (6 DUPLICATES REMOVED)
             13 S L3
L5
            149 S L1 AND HA-1
L6
             58 DUP REMOVE L5 (91 DUPLICATES REMOVED)
L7
              2 S L6 AND VLXDDLLEA
_{
m L8}
             8 S L5 AND VLHDDLLEA
L9
              2 DUP REMOVE L8 (6 DUPLICATES REMOVED)
L10
              5 S L5 AND VLRDDLLEA
              1 DUP REMOVE L10 (4 DUPLICATES REMOVED)
L11
=> s 11 and HA-2
L12
            55 L1 AND HA-2
=> dup remove L12
PROCESSING COMPLETED FOR L12
             17 DUP REMOVE L12 (38 DUPLICATES REMOVED)
=> d 113 1-17
L13 ANSWER 1 OF 17 SCISEARCH COPYRIGHT 2001 ISI (R)
     2001:76463 SCISEARCH
AN
GΑ
     The Genuine Article (R) Number: 372WB
     Emergence of hematopoiesis-specific minor
     histocompatibility antigen (mHag) HA-1 and HA-
     2 specific CD8+T cells associated with complete molecular
     remission after donor lymphocyte infusion (DLI) for relapsed CML.
    Marijt W A F (Reprint); Kester M G D; Goulmy E; Mutis T; Drijfhout J W;
ΑU
```

Willemze R; Falkenburg J H F

```
Leiden Univ, Med Ctr, Dept Hematol, Leiden, Netherlands; Leiden Univ, Med
     Ctr, Dept Immunohematol, Leiden, Netherlands
CYA
    Netherlands
     BLOOD, (16 NOV 2000) Vol. 96, No. 11, Part 1, pp. 478A-478A. MA 2055.
SO
     Publisher: AMER SOC HEMATOLOGY, 1900 M STREET. NW SUITE 200, WASHINGTON,
     DC 20036 USA.
     ISSN: 0006-4971.
DT
     Conference; Journal
LA
     English
REC Reference Count: 0
L13 ANSWER 2 OF 17 MEDLINE
                                                       DUPLICATE 1
     1999192451
ΑN
                   MEDLINE
DN
     99192451
ΤI
     Feasibility of immunotherapy of relapsed leukemia with ex vivo-generated
     cytotoxic T lymphocytes specific for hematopoietic system-restricted
    minor histocompatibility antigens [see
     comments].
CM
     Comment in: Blood 1999 Dec 15;94(12):4374-6
ΑU
     Mutis T; Verdijk R; Schrama E; Esendam B; Brand A; Goulmy E
CS
     Department of Immunohematology and Blood Bank, Leiden University Medical
     Center, Leiden, The Netherlands.. Mutis@rullf2.leidenuniv.nl
     BLOOD, (1999 Apr 1) 93 (7) 2336 41.
     Journal code: A8G. ISSN: 0006-4971.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
    Abridged Index Medicus Journals; Priority Journals; Cancer Journals
FS
ΕM
     199906
L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2001 ACS
    1997:215796 CAPLUS
    126:198552
DN
TI
    HA-2 antigenic peptide
     Goulmy, Els A. J. M.; Hunt, Donald F.; Engelhard, Victor H.
     Rijksuniversiteit Te Leiden, Neth.; University of Virginia Patent
     Foundation; Goulmy, Els A. J. M.; Hunt, Donald F.; Engelhard, Victor H.
SO
    PCT Int. Appl., 36 pp.
     CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
                                          _____
     ------
PI
    WO 9705169
                     A1
                           19970213
                                         WO 1996-NL183
                                                          19960425
        W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
            ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
            LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
            SG, SI
        RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
            IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
    US 5770201
                                          US 1994-363691
                      Α
                           19980623
                                                          19941223
```

CA 2224909

AU 9654099

AU 716907

EP 840750

AA

Α1

B2

A1

IE, SI, LT, LV, FI

19970213

19970226

20000309

19980513

CA 1996-2224909 19960425

19960425

19960425

AU 1996-54099

EP 1996-911119

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

```
T2 19991207 JP 1996-507492 19960425
     JP 11514340
PRAI EP 1995-202039
                      19950725
     WO 1996-N
L183
     19960425
L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2001 ACS
     2000:6100 CAPLUS
     132:292279
    Nature of the minor histocompatibility
     antigens
     Goulmy, E.
     Department of Immunohaematology and Blood Bank, University Hospital,
CS
     Leiden, 2300 RC, Neth.
SO
     HLA: [Proc. Int. Histocompat. Workshop Conf.], 12th (1997), Meeting Date
     1996, Volume 2, 39-41. Editor(s): Charron, Dominique. Publisher: EDK,
     Medical and Scientific International Publisher, Sevres, Fr.
     CODEN: 68MRA5
DT
     Conference; General Review
     English
LA
RE.CNT 10
(2) Den Haan, J; Eur J Immunol 1996, V26, P2680 CAPLUS
(3) Den Haan, J; Science 1995, V268, P1476 CAPLUS
(6) Goulmy, E; Curr Op Immunol 1996, V8, P75 CAPLUS
(9) Van der Harst, D; Blood 1994, V83, P1060 CAPLUS
(10) Wang, W; Science 1995, V269, P1588 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L13 ANSWER 5 OF 17 MEDLINE
                                                        DUPLICATE 2
NA
    97080610
                MEDLINE
DN
     97080610
ΤI
    Conservation of minor histocompatibility
     antigens between human and non-human primates.
ΑU
     den Haan J M; Bontrop R E; Pool J; Sherman N; Blokland E; Engelhard V H;
    Hunt D F; Goulmy E
CS
     Department of Immunohaematology and Bloodbank, Leiden University
Hospital,
    The Netherlands.. haan.j@rulgca.leidenuniv.nl
    AI20963 (NIAID)
NC
    AI33993 (NIAID)
    EUROPEAN JOURNAL OF IMMUNOLOGY, (1996 Nov) 26 (11) 2680-5.
SO
    Journal code: EN5. ISSN: 0014-2980.
CY
    GERMANY: Germany, Federal Republic of
DT
    Journal; Article; (JOURNAL ARTICLE)
LΑ
    English
FS
    Cancer Journals; Priority Journals
EM
    199703
L13 ANSWER 6 OF 17 BIOSIS COPYRIGHT 2001 BIOSIS
    1996:111037 BIOSIS
ΑN
DN
    PREV199698683172
ጥፐ
    Mismatches of minor histocompatibility
     antigens between HLA-identical donors and recipients and the
    development of graft-versus-host disease after bone marrow
    transplantation.
ΑU
    Goulmy, Els (1); Schipper, Ronald; Pool, Jos; Blokland, Els; Falkenburg,
    J. H. Frederick; Vossen, Jaak; Gratwohl, Alois; Vogelsang, Georgia B.;
Van
```

```
Houwelingen, Hans C.; Van Rood, Jon J.
     (1) Dep. Immunohematology Blood Bank, Leiden Univ. Hosp., P.O. Box 9600,
CS
     2300 RC Leiden Netherlands
     New England Journal of Medicine, (1996) Vol. 334, No. 5, pp. 281-285.
SO
     ISSN: 0028-4793.
DT
     Article
LA
     English
L13 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1996:532658 CAPLUS
DN
     125:193403
     Functional expression of minor histocompatibility
TI
     antigens on human peripheral blood dendritic cells and epidermal
     Langerhans cells
     Van Lochem, Ellen; Van Der Keur, Maarten; Mommaas, A. Mieke; De Gast,
, UA
     Gijsbert C.; Goulmy, Els
CS
     Department Immunohematology and Bloodbank, Leiden University Hospital,
     Leiden, 2300 RC, Neth.
SO
     Transplant Immunol. (1996), 4(2), 151-157
     CODEN: TRIME2; ISSN: 0966-3274
DT
     Journal
     English
LΑ
L13 ANSWER 8 OF 17 MEDLINE
                                                         DUPLICATE 3
     95288637
AN
                  MEDLINE
     95288637
DN
     Identification of a graft versus host disease-associated human
ΤI
     minor histocompatibility antigen.
ΑU
     den Haan J M; Sherman N E; Blokland E; Huczko E; Koning F; Drijfhout J W;
     Skipper J; Shabanowitz J; Hunt D F; Engelhard V H; et al
CS
     Department of Immunohaematology, University Hospital, Leiden,
Netherlands.
     AI33993 (NIAID)
     AI20963 (NIAID)
SO
     SCIENCE, (1995 Jun 9) 268 (5216) 1476-80.
     Journal code: UJ7. ISSN: 0036-8075.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
FS
     Priority Journals; Cancer Journals
EM
     199509
L13 ANSWER 9 OF 17 MEDLINE
                                                         DUPLICATE 4
                  MEDLINE
ΑN
     95362850
DN
     95362850
TΙ
     Recognition of clonogenic leukemic cells, remission bone marrow and
     HLA-identical donor bone marrow by CD8+ or CD4+ minor
     histocompatibility antigen-specific cytotoxic T
     lymphocytes.
ΑU
     Faber L M; van der Hoeven J; Goulmy E; Hooftman-den Otter A L; van
     Luxemburg-Heijs S A; Willemze R; Falkenburg J H
CS
     Department of Hematology, University Medical Center, Leiden, The
     Netherlands..
SO
     JOURNAL OF CLINICAL INVESTIGATION, (1995 Aug) 96 (2) 877-83.
     Journal code: HS7. ISSN: 0021-9738.
CY
     United States
```

DΤ

LA

English

Journal; Article; (JOURNAL ARTICLE)

```
FS
     Abridged Index Medicus Journals; Priority Journals; Cancer Journals
EΜ
     199511
                                                         DUPLICATE 5
L13 ANSWER 10 OF 17 MEDLINE
     94333484
AN
                  MEDLINE
     94333484
DN
\mathtt{TI}
     Presentation of viral antigens restricted by H-2Kb, Db or Kd in
proteasome
     subunit LMP2- and LMP7-deficient cells.
     Zhou X; Momburg F; Liu T; Abdel Motal U M; Jondal M; Hammerling G J;
AU
     Ljunggren H G
CS
     Microbiology and Tumor Biology Center, Karolinska Institute, Stockholm,
     EUROPEAN JOURNAL OF IMMUNOLOGY, (1994 Aug) 24 (8) 1863-8.
SO
     Journal code: EN5. ISSN: 0014-2980.
CY
     GERMANY: Germany, Federal Republic of
     Journal; Article; (JOURNAL ARTICLE)
DT
T.A
     English
FS
     Priority Journals; Cancer Journals
EM
     199411
L13 ANSWER 11 OF 17 MEDLINE
                                                         DUPLICATE 6
               MEDLINE
AN
     94154267
DN
     94154267
ΤI
     Recognition of minor histocompatibility
     antigens on lymphocytic and myeloid leukemic cells by cytotoxic
     T-cell clones.
ΑU
     van der Harst D; Goulmy E; Falkenburg J H; Kooij-Winkelaar Y M; van
     Luxemburg-Heijs S A; Goselink H M; Brand A
CS
     Department of Immunohematology and Bloodbank, University Medical Center,
     Leiden, The Netherlands..
SO
     BLOOD, (1994 Feb 15) 83 (4) 1060-6.
     Journal code: A8G. ISSN: 0006-4971.
CY
     United States
DΤ
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
FS
     Abridged Index Medicus Journals; Priority Journals; Cancer Journals
EM
     199406
L13 ANSWER 12 OF 17 MEDLINE
                                                         DUPLICATE 7
NA
     94083660
                  MEDLINE
DN
     94083660
ΤI
     Minor histocompatibility antigens HA-1-,
     -2-, and -4-, and HY-specific cytotoxic T-cell clones inhibit human
     hematopoietic progenitor cell growth by a mechanism that is dependent on
     direct cell-cell contact.
ΑU
     Marijt W K; Veenhof W F; Goulmy E; Willemze R; van Rood J J; Falkenburg J
CS
     Department of Hematology, University Medical Center, Leiden, The
     Netherlands..
SO
     BLOOD, (1993 Dec 15) 82 (12) 3778-85.
     Journal code: A8G. ISSN: 0006-4971.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
FS
     Abridged Index Medicus Journals; Priority Journals; Cancer Journals
```

EΜ

199403

```
L13 ANSWER 13 OF 17 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 8
AN
     93095092 EMBASE
DN
     1993095092
TI
     Isolation of an HLA-A2.1 extracted human minor histocompatibility
peptide.
ΑU
     De Bueger M.; Verreck F.; Blokland E.; Drijfhout J.W.; Amous R.; Koning
     F.; Goulmy E.
CS
     Department of Immunohaematology, University Hospital Leiden,
     Rijnsburgerweg 10, NL-2333 AA Leiden, Netherlands
     European Journal of Immunology, (1993) 23/3 (614-618).
SO
     ISSN: 0014-2980 CODEN: EJIMAF
CY
     Germany
DT
     Journal; Article
FS
     026
             Immunology, Serology and Transplantation
     029
             Clinical Biochemistry
     English
LA
     English
SL
                                                        DUPLICATE 9
L13 ANSWER 14 OF 17 MEDLINE
     93246305
                  MEDLINE
     93246305
DN
     A genetic analysis of human minor histocompatibility
     antigens demonstrates Mendelian segregation independent of HLA.
     Schreuder G M; Pool J; Blokland E; van Els C; Bakker A; van Rood J J;
     Goulmy E
     Department of Immunohaematology, University Hospital Leiden, The
     Netherlands..
     IMMUNOGENETICS, (1993) 38 (2) 98-105.
     Journal code: GI4. ISSN: 0093-7711.
CY
    United States
DΤ
     Journal; Article; (JOURNAL ARTICLE)
    English
FS
     Priority Journals; Cancer Journals
EM
    199308
L13 ANSWER 15 OF 17 MEDLINE
                                                        DUPLICATE 10
ΑN
     92373026
                 MEDLINE
DN
     92373026
     Tissue distribution of human minor histocompatibility
     antigens. Ubiquitous versus restricted tissue distribution
     indicates heterogeneity among human cytotoxic T lymphocyte-defined
     antigens.
ΑU
     de Bueger M; Bakker A; Van Rood J J; Van der Woude F; Goulmy E
     Department of Immunohaematology, University Hospital, Leiden, The
SO
     JOURNAL OF IMMUNOLOGY, (1992 Sep 1) 149 (5) 1788-94.
     Journal code: IFB. ISSN: 0022-1767.
CY
    United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
FS
    Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ΕM
    199211
L13 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2001 ACS
AΝ
    1992:233346 CAPLUS
DN
    116:233346
ΤI
    Transfected human class I gene product adequately assembles minor
```

Page 30

## histocompatibility antigens

- AU Goulmy, Els; Pool, Jos; Blokland, Els; Geraghty, Dan
- CS Dep. Immunohaematol., Univ. Hosp., Leiden, 2300 RC, Neth.
- SO Immunogenetics (1991), 34(4), 270-2 CODEN: IMNGBK; ISSN: 0093-7711
- DT Journal
- LA English
- L13 ANSWER 17 OF 17 MEDLINE

DUPLICATE 11

- AN 89067836 MEDLINE
- DN 89067836
- TI Cellularly defined minor histocompatibility antigens are differentially expressed on human hematopoietic progenitor cells.
- AU Voogt P J; Goulmy E; Veenhof W F; Hamilton M; Fibbe W E; Van Rood J J; Falkenburg J H
- CS Department of Hematology, University Medical Center, Leiden, The Netherlands..
- SO JOURNAL OF EXPERIMENTAL MEDICINE, (1988 Dec 1) 168 (6) 2337-47.

  Journal code: I2V. ISSN: 0022-1007.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; Cancer Journals
- EM 198903

=>

---Logging off of STN---

=>

Executing the logoff script...

=> Log Y

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 66.79 66.94 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -4.12 -4.12

STN INTERNATIONAL LOGOFF AT 10:50:41 ON 12 FEB 2001